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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,408	08/15/2003	Yawei Ma	03-740	1485

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EXAMINER

LY, NGHI H

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/642,408

Applicant(s)

MA ET AL.

Examiner

Nghi H. Ly

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 3-9 and 12-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu et al (US 6,666,422) in view of Janninck et al (US 6,766,182).

Regarding claim 1, Lu teaches a rotating shaft for pivotally connecting to the body of a rotary-wing type digital mobile communication equipment (see fig.2) , wherein the rotating shaft comprises: a spindle formed at both ends thereof with a first positioning portion and at mid-section thereof with a rotary portion (see fig.2, item 70), a fixing member hitched on the first positioning portion of the spindle and to be positioned

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to the spindle fixedly (see fig.2, item 10) and formed with a limit block (see fig.2, item 11), a rotary member pivotally disposed on the rotary portion of the spindle (see fig.2, item 23), a rotatable limit component pivotally disposed on the rotary portion of the spindle (see fig.2, item 27) and positioned between the fixing member and the rotary member and provided with a radially protruding first protruding block (see fig.2), the rotary member is coupled to the rotatable limit component and leaves some rotating space (see fig.2, item 11), when the rotary member rotates, it drives the rotatable limit component rotating (see fig.2, item 11), and when the first protruding block formed on the rotatable limit component is blocked by the limit block formed on the fixing member (see fig.2, item 271), the rotary member has rotated through 180 degrees (see fig.5 and fig.7, item 10 can be rotated 180).

Lu does not specifically a rotary-wing type digital mobile communication equipment.

Janninck teaches a rotary-wing type digital mobile communication equipment (see fig.2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Janninck into the system of Lu in order to provide a wireless communication device having a unique factor to facilitate its portability and maximize its functionality (see Janninck, column 1, lines 10-13).

Regarding claim 2, Lu further teaches the rotatable limit component is ring-shaped, the rotary member is formed at an end surface thereof adjacent to the rotatable limit component with an axially extending ring-shaped protrusion which is provided with

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an opening (see fgi.2, item 27), the first protruding block of the rotatable limit component is embedded in the opening whose width is larger than that of the first protruding block (see fgi.2, item 271), when the rotary member rotates about the spindle (see fgi.2, item 10), the ring-shaped protrusion comes into contact with the protruding block to drive the rotatable limit component rotating (see fgi.2, item 11).

Regarding clam 11, Lu further teaches the fixing member and the rotary member are both formed with a plurality of screw holes (see fig.2, items 20 and 21 with a plurality of screw holes).

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lu et al (US 6,666,422) in view of Janninck et al (US 6,766,182) further in view of Kobayashi (US 5,433,620).

Regarding claim 10, the combination of Lu and Janninck teaches a rotating shaft as claimed in claim 1. The combination of Lu and Janninck does not specifically disclose the spindle is hollow, through which passes an electrical connecting cable or a flexible printing plate disposed between the rotary wing and the body.

Kobayashi teaches disclose the spindle is hollow, through which passes an electrical connecting cable or a flexible printing plate disposed between the rotary wing and the body (see column 6, line 62 to column 7, line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Kobayashi into the system of Lu

and Janninck so hat the flexible cable can be extended from the base unit into the display unit (see Kobayashi, Abstract).

***Allowable Subject Matter***

5. Claims 3-9 and 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 3, the combination of Lu and Janninck teaches the rotatable limit component in turn comprises a first rotary member (see Lu, fig.2, item 10), a rotatable limit member (see Lu, fig.2, item 11).

The combination of Lu and Janninck fails to teach a second rotary member, the second rotary member is fixedly connected to the rotary member and formed at the interior circumference thereof with a plurality of first open slots; the first protruding block is formed on the rotatable limit member which is formed at the interior circumference thereof with a plurality of second open slots in correspondence with the locations of the first open slots; the first rotary member is provided with a plurality of axially extending third protruding blocks which are inserted into the first open slots formed on the second rotary member through the second open slots formed on the rotatable limit member; the circumferential width of the second open slots is larger than that of the third protruding blocks; when the rotary member rotates, it drives the first rotary member and the second rotary member rotating and simultaneously drives the rotatable limit member rotating.

Regarding claim 12, the combination of Lu and Janninck teach a method of mounting the rotating shaft between the mobile telephone body and the rotary wing (see Janninck, fig.2), wherein comprises following steps: a. to provide a rotating shaft assembly assembled with a plurality of members (see Lu, fig.2), b. to provide a mobile telephone body (see Janninck, fig.2).

The combination of Lu and Janninck fails to teach on the upper end of the front shell of the body is formed with a sunken mounting-space; c. to place the rotating shaft into the mounting-space of the front shell of the mobile telephone body, and to fixedly mount the rotary member of the rotating shaft inside the front shell of the mobile telephone body; d. to provide a rotary wing of the mobile telephone; e. to fixedly mount together the back shell of the rotary wing of the mobile telephone and the fixing member of the rotating shaft.

### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Hemmi (US 6,650,547) teaches rotary structure for replaying signals.
- b. Yang (US 6,883,206) teaches swivel hinge with angular fixing structure.
- c. Liao (US 6,772,983) teaches pivot coupler pivotally connecting a monitor to a stand.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911.

The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi H. Ly

*NH Ly*  
05/31/05

*Marsha D Banks-Harold*  
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